

**FINDING OF NO SIGNIFICANT IMPACT
AND
DECISION RECORD**
for
Enduring Resource's
Saddletree Draw Leasing and Rock House Development
Environmental Assessment

Uintah County, Utah
EA# UT-080-07-671

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A. INTRODUCTION:

The Bureau of Land Management (BLM) has prepared an Environmental Assessment to address Enduring Resource's Saddletree Draw Leasing and Rock House Development proposal (EA No. UT-080-07-671). The proposed action would allow for the suspension placed on lease UTU-81737 to be lifted, and for the development of up to sixty wells from twenty-four well pads on that and three other existing leases. The project would include the construction of approximately eight miles of road, approximately nine miles of surface pipeline, and a water collection system. The underlying need for the Federal action is to determine whether or not to proceed with leasing with respect to lease UTU-81737 as guided by all relevant law and policy, and to permit the exercising of valid lease rights within the Project Area in a manner that minimizes or mitigates environmental impacts, and is consistent with the Book Cliffs RMP, lease terms and conditions, and applicable policies, regulations and laws. The underlying purpose of the Federal action is to take into account information from ongoing inventories of public land resources, permit the exercising of valid lease rights in a manner that minimizes environmental impacts, and implement protective measures as necessary.

The Rock House Project Area encompasses 4,826 acres located about 35 miles south-southeast of Vernal, in portions of Township 10 South, Range 23 East (Sections 19-21 and 28-33), Township 10 South, Range 22 East (Section 36), and Township 11 South, Range 23 East (Sections 3-4) in Uintah County, Utah.

B. DECISION:

It is my decision to approve and authorize on a programmatic level the proposed leasing and development project and to proceed as set out in Alternative A (the Proposed Action) of the Enduring Resources Saddletree Draw Leasing and Rock House Development EA (UT-080-07-671), omitting the road to the 42-30 well location on private land in the SENE of Section 30, T10S, R23E, subject to the Applicant Committed Measures as discussed in this document and the EA, and the reasonable and prudent measure identified by the U.S. Fish and Wildlife Service (the selected alternative). However, additional site-specific review of each on-the-ground component of the selected alternative is necessary prior to project implementation. These site specific reviews may result in modifications that, depending on the nature of the modification, may require further NEPA and other analyses prior to approval. This decision includes the following:

- Recommended lifting of the suspension on lease UTU-81737;
- The drilling of up to 60 wells to be drilled from 17 well pads and the installation of necessary production facilities;
- The construction of up to 8.4 miles of new road, not including the development of the access road to the 42-30 well which has been omitted;
- The construction of up to 8.9 miles of new surface, steel gas-gathering pipeline; and
- The installation of a water system including up to:
 - two water pumps,
 - one trailer-mounted Baldor Mobile Power Generator,
 - one electrical connection line (0.5 inch diameter Rita cable),
 - two screened, 4-inch hoses (about 50-feet long each) to draw water from the river, and
 - Approximately 11 miles of up to 2-inch diameter temporary plastic pipelines to distribute the water to water storage tanks that would be located on three of the above well pads.

C. FINDING OF NO SIGNIFICANT IMPACT DETERMINATION:

Based upon a review of the EA and the supporting documents, I have determined that the selected alternative is not a major Federal action and will not significantly affect the quality of the human environment, individually or cumulatively, with other actions in the general area. No environmental effects meet the definition of significance in context or intensity as defined in 40 CFR 1508.27 and do not exceed those effects described in the Book Cliffs Resource Management Plan and Final Environmental Impact Statement (RMP/FEIS). Therefore, an environmental impact statement is not needed. This finding is based on the context and intensity of the selected alternative as described:

Context: The selected alternative is a programmatic action with the potential to directly impact up to 106 acres of BLM-administered land that by itself does not have international, national, regional, or state-wide importance.

Intensity: The following discussion is organized around the Ten Significance Criteria described in 40 CFR 1508.27. The following points have been considered in evaluating intensity for this proposal:

1. **Impacts that may be both beneficial and adverse.** The selected alternative would impact resources as described in Chapters 4 and 5 of the EA. All mitigating measures were incorporated into the design of the selected alternative by the applicant. None of the environmental effects discussed in the EA are considered significant, nor do the effects exceed those described in the Book Cliffs FEIS.

During the public comment period, it was suggested that the selected alternative would result in significant impacts to the items listed below. Those impacts are not significant for the bulleted reasons listed below each comment.

Public Comment: The EA dismisses impacts that might result from this project to the important values of the proposed ACEC, such as boating, recreation, and the Goblin City overlook, even though any alternative will undoubtedly significantly impact such values.

- Direct and indirect impacts from the selected alternative to wetlands/riparian areas are fully disclosed in Section 4.6.1. Direct impacts include the disturbance of less than 0.01 acre vegetation from the water collection system. The indirect impact of contamination through spills has been minimized by placing the generator outside of the 100-year floodplain and inside of a metal building that would be surrounded by a lined earthen berm. In addition, a positive impact is expected to be realized from the water collection system. This includes the minimization of truck traffic and, by association, the minimized potential for weed propagation, sedimentation, and fugitive dust. These impacts are not significant because of their small size and minimized potential.
- Direct and indirect impacts from the selected alternative to recreation, including impacts on Goblin City, the Atchee Wash campsite, river recreation and the White River viewshed, are fully disclosed in Section 4.8.1.

No direct impacts to Goblin City will occur. The indirect impact to Goblin City is the potential visibility (based on modeling) of five new well pads and two expanded pads from the Goblin City Overlook. This impact is not significant due to the potential to utilize topography and vegetation for screening, as well as the applicant committed measures to paint facilities to blend in with their surroundings.

No direct impacts to the Atchee Wash Campsite would occur. Indirect impacts include the visual impact of the water collection hose, water pipeline, and electrical line. These impacts are not significant due to the small size of the hose and lines, and the ability to use vegetation to screen them from the view of the casual observer.

No direct impact to river recreation, including the White River viewshed, will occur. Indirect impacts include the potential for wells to be drilled during the peak recreation season, the potential visibility of the rigs from the river, potential noise impacts from the generator, and potential visibility impacts of the water collection hose and water pipeline. These impacts are not significant due to the temporary nature of the drill rigs, the lack of permanent disturbance within the viewshed of the river, (the road to the SENE of Section 30 was withdrawn by the proponent), the minimization of sound impacts by placing the generator inside of a metal building and directing the generator muffler away from the river, and the small size of the hose and line and the ability to use vegetation to screen them from the view of the casual observer.

- Direct and indirect impacts from the selected alternative to wildlife are fully disclosed in Section 4.11.1. The selected alternative will impact special status, threatened, and endangered species as detailed in bullet 9 below. Impacts generally include habitat fragmentation and degradation or destruction and displacement. These impacts are not significant due to the relatively small amount of new surface disturbance within the Project Area (2.2% of the total), and the inclusion of applicant committed measures and reasonable and prudent measures to minimize the above impacts.

Public Comment: The Rock House EA improperly waives away substantive discussion of increased illegal ORV use the area closed to OHV use by the Book Cliffs RMP. The increased illegal ORV use that will result in the area is a significant impact.

- The EA appropriately discloses that the proposed project could result in increased ORV use in closed areas. To reduce this impact, an applicant committed mitigation measure was added to Section 2.8.6 of the Final EA that would include placing signs along the proposed access route to notify the public as to where OHV travel is prohibited. This impact has been further reduced by the selected alternative, which includes the proponents omission of the access road to the SENE of Section 30. This disturbance would have been nearest to this closed area.

Public Comment: The Rock House EA describes potential erosion rates that would be rather high. The EA should establish significance criteria to aid interpretation of whether this increase in sediment load constitutes an acceptable level of impact to water resources and threatened and endangered species.

- The increased gross erosion is estimated to be about 331 tons per year, or an increase of about 4.3 percent for the total erosion rate for the Project Area. However, as discussed elsewhere, natural factors and implementation of erosion control measures would minimize the amount of increased sedimentation to Project Area drainages and the White River. This impact is not significant because the estimated increased sedimentation to the White River of 0.003 percent would be negligible.

Public Comment: Without further analysis it is improper for the BLM to conclude that weed impacts to vegetation and special status plant species will not be significant.

- A more detailed discussion of the potential impacts of noxious and invasive weeds was added to section 4.7 of the Final EA. Applicant committed measures regarding weeds include reclamation efforts, obtaining a pesticide use permit prior to application of herbicides, and minimizing truck traffic through the installation of a water pumping system. These measures are expected to minimize the impacts of weeds to special status and general vegetation by control and avoidance. Consultation with the Fish and Wildlife Service has occurred as appropriate, and no inappropriate conclusions or additional mitigation measures were identified during that process. This impact is not significant because of the small amount of new disturbance within the Project Area (2.2% of the total), and the inclusion of applicant committed measures to minimize or avoid the above impacts.

Public Comment: The Book Cliffs RMP discusses significant and very stringent restrictions regarding visual impacts in the White River viewshed which conflict with the present proposal. These conflicts certainly represent significant impacts.

- Under the selected alternative, up to five wells, approximately 1.5 miles of road and surface gas pipelines, approximately 3.5 miles of surface water pipes, one portable generator, two submersible pumps, and an electrical cord are located within the area designated by the Book Cliffs RMP as being VRM Class II. The objective of this class is to retain the existing character of the landscape. The level of change to the landscape should be low. Management activities may be seen, but should not attract the attention of the casual observer. Any changes to the landscape must repeat the basic elements of form, line, color, and texture found in the natural features of the landscape. To minimize visual impacts, the proponent has committed to directionally drill those wells, and not construct the road that leads to the SENE of Section 30. Also, the water pump system is designed to minimize truck traffic on existing roads in the area and at the river. The roads and pipelines would be constructed in a sinuous route that follows the topography of the land. Therefore, the selected alternative is in conformance with the VRM objectives, and this is not a significant impact.

Public Comment: The Rock House EA states that the new development associated with the present plans for this project would directly impact the tentative classification of this area as part of the National Wild and Scenic river system due to augmented rates of access and use in this proposed “wild” corridor. It also ignores the substantial intrusion of a generator and water pumps in the area, which are potentially significant impacts to the resources supporting BLM’s proposal to designate this stretch of the river as “wild”.

- The proposed generator, pumps, one mile of water pipeline, and 2.4 miles of electrical line would be located within the eligible wild and scenic river area. The road to the SENE of Section 30 has been omitted by the proponent and would not be built. Minimization of sound impacts would occur by placing the generator inside of a metal building and directing the generator muffler away from the river. The small size of the hose and line would enable the proponent to use vegetation and topography to screen those objects from the view of the casual observer. The pumps would be subsurface. The generator would be located outside of the 100-year floodplain of the river so that vegetation would hide it from view. Because these items would not be substantially visible or audible, they are not expected to impact the tentative classification of this river segment. In addition, these components of the water collection system would facilitate the minimization of truck traffic at the river, which would help preserve the “wild” character of the corridor. Therefore these impacts are not significant.
- The relevant resource values for which the WSR is being considered include Goblin city, river recreation, the White River viewshed, wildlife, and cultural resources. The impacts to Goblin City, river recreation, the White River viewshed, and wildlife are as described above. Potential impacts to National Register of Historic Places eligible sites would be avoided by the project. Adverse effects to non-eligible sites would either be avoided or mitigated (for example, through data recovery). Indirect impacts include damage, destruction, or removal through vandalism, collection, excavation, and off-road vehicle use. The operator has committed to survey for cultural sites prior to construction, and to avoid or mitigate impacts. In addition, if previously

unknown cultural sites are encountered during construction, work would stop until the sites were assessed and a course of action decided upon through the Section 106 process. Therefore, these impacts are not significant.

Public Comment: The proposed project would significantly impact wilderness characteristics in that over 21% of this area would lose wilderness character.

- Direct impacts would occur on up to 84 acres (less than 0.4%) in the White River wilderness characteristics area (less the impact from the road to the SENE of Section 30). Additionally, approximately 3,701 acres (17%) of the area would be segregated from the main body of the wilderness characteristics area as a result of development. Wilderness characteristics may still exist on those acres, but due to there being less than 5,000 contiguous acres, those acres may be unmanageable for wilderness characteristics. However, that planning decision will be made in the land use plan revision process. Indirect sight and sound impacts would occur on a portion of the segregated area. However, due to the rugged topography of the area, the impacts of any one action would be limited in space. For example, a well on a ridge top would not affect wilderness characteristics in the draw below. In addition, the impacts would be further isolated geographically since only one drill rig would be operating in the area at any given time. The impacts would also be limited in time, in that visual and auditory disturbances would occur primarily during the construction and development period (4 to 6 years). These impacts are not significant.

Public Comment: Cumulative impacts from this project combined with other foreseeable development in the area could result in significant impacts to water quality.

- Section 5.2.4 of the Final EA currently quantifies increased erosion and sediment yield for cumulative oil and gas development. Surface disturbance associated with past, present, and reasonably foreseeable oil and gas development (i.e. 12,201 wells = 44,091 acres) in the cumulative impact area would increase background erosion rates from 63,932 tons per year to approximately 191,795 tons per year. Assuming that sedimentation control devices employed for the reasonably foreseeable projects would be about 80 percent effective, the sediment delivery from these projects would be about 38,359 tons per year, or about 1.7% of the current sediment load rate of the White River at Ouray. This impact is not significant.

Public Comment: The Rock House EA states that bald eagles could be impacted by the noise of the generator located along the White River, but ultimately concludes that bald eagles would not be impacted by the noise based on erroneous figures for sound levels in the Project Area (the EA likely overstates the actual sound level of the White River near the mouth of Saddletree Draw, and is likely not representative of noise levels year round). These effects could result in significant impacts.

- The BLM acknowledges that noise measurements were recorded along the White River during higher than average flow (May 3 = 1,730 cfs; 2006 average = 692 cfs) and that background noise levels would be decreased during other portions of the year. However, to put the noise expected from the generator in context, please refer to the following charts. This impact is not significant.

Noise source	Average Noise (dBA)	“Loudness” (compared to normal conversation)	Range of Noise (dBA)
Ambulance siren at 100 feet	100	16	95-105
Motorcycle at 25 feet	90	8	85-95
Typical Construction site	85	6	80-90
Single truck passing at 25 feet	80	4	75-85
Urban shopping center	70	2	65-75
Single car passing at 25 feet	65	1.5	60-70
Average highway noise at 100 feet	60	1	55-65
Normal conversation 5 feet apart	60	1	57-63
Residential area during day	50	50%	47-53
Recreational area	45	37%	40-50
Residential area at night	40	25%	37-43
Rural area during day	40	25%	37-43
Rural area at night	35	18%	32-37
Quiet whisper	30	12%	27-33
Threshold of hearing	20	6%	17-23
<i>Source: EPA (1974), Harris (1991)</i>			

Project Specifics	
Generator at 21 feet	67
White River Measurement	55.9
Generator at 100 feet	53.5

Public Comment: The Rock House EA declares that human activity can affect sage grouse; the potential impacts from this project could thus rise to the level of significance.

- No breeding (leks) or nesting sage-grouse habitat occurs in the Project Area. Therefore, impacts to sage-grouse utilizing habitats in the Project Area would primarily consist of displacement or avoidance of potentially suitable habitats due to increased disturbance from human activity, increased traffic, and noise associated with construction and drilling activities. As these impacts would be temporary and would not occur in breeding (leks) or nesting habitats, they are not likely to affect the viability of sage-grouse populations, and thus are not significant.

Public Comment: Past, present, and reasonably foreseeable development in the Project Area could lead to large cumulative impacts in the proposed White River ACEC, ranging from nearly 15% to 32% of the VRM II areas being affected by development. This is a significant impact.

- Within the cumulative impact area for VRM II, past and reasonably foreseeable development includes 21 wells, or 75 acres of surface disturbance. This equals 0.3% of the 23,856 acre area. These impacts are not significant.
- Cumulative impacts to the proposed ACEC (past, present, and reasonably foreseeable) include 1,833 acres of surface disturbance, or 3.9% of the 47,130 acre area. This is not significant.

2. **The degree to which the selected alternative affects public health or safety.** Potential impacts to public health and safety will result from increased traffic in the Project Area, and air quality impacts as described in Chapters 4 and 5 of the EA. Additional potential impacts to public health and safety would result from the installation and use of production facilities, should the wells be placed into production. The selected alternative is designed to minimize adverse affects to public health and safety from trucking associated with the selected alternative, and the associated fugitive dust through the inclusion of a water pumping system. The proposed water system would reduce water truck miles traveled on roads in the Project Area from 68,100 miles to approximately 6,900 miles. Potential impacts to public health and safety from the installation and use of production facilities would be minimized through compliance with OSHA regulations.
3. **Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farm lands, wetlands, wilderness, wild and scenic rivers, or ecologically critical areas.** No prime farm lands, designated wilderness, wilderness study areas, or designated Wild and Scenic Rivers would be impacted by the selected alternative because they are not present in the Project Area (see Appendix B of the EA). Impacts to historic or cultural resources, wetlands/riparian areas along the river, wilderness characteristics areas, rivers eligible for designation under the Wild and Scenic Rivers Act, lands nominated for designations as Areas of Critical Environmental Concern, and habitat for four endangered Colorado River fish species would occur as described in Chapters 4 and 5 of the EA.
 - Cultural resources would not be significantly impacted because the applicant has committed to conduct class III surveys and implement avoidance or mitigation as directed through the section 106 process.
 - Wetland/riparian areas along the river would not be significantly impacted because the applicant has committed to place the proposed generator inside of a metal building that would be placed inside of a lined berm to prevent contamination that may result from accidental spills, and because vegetation disturbed for the water pumps, sump, and water pipelines would be less than 0.01 acre. In addition, the proposed water system would minimize impacts to wetland/riparian areas because there are existing water rights on the river that are currently being accessed by tank truck. The water pump system would eliminate the need for tank trucks associated with this project to drive down to the river to obtain water.
 - The selected alternative would directly impact up to 84 acres, or less than 0.4 percent of the total White River wilderness characteristics area. The selected alternative would segregate up to 3,701 acres (17 percent) of the White River wilderness characteristics area, so that wilderness characteristics may still exist in those areas but they would be separated from the main body of wilderness characteristics by human disturbances. This area may be of an insufficient size to be managed on its own for the preservation of wilderness characteristics (less than 5,000 acres). However, that planning decision will be made in the land use plan revision process. In addition, indirect sight and sound impacts would occur on a portion of the segregated area. However, due to the rugged topography of the area, the impacts of any one action would be limited in space. For example, a well on a ridge top would not affect wilderness characteristics in the draw below. The impacts would be further isolated geographically since only one drill rig would be operating in the area at any given

time. The impacts would also be limited in time, in that visual and auditory disturbances would occur primarily during the construction and development period (4 to 6 years). This impact is not significant because of the small percentage of the area directly and indirectly impacted. In addition, the operator has committed to implement reclamation upon completion of the project (plugging of the proposed wells), and upon successful reclamation of the project, wilderness characteristics would again be present in the Project Area.

- In accordance with the BLM Manual 8351 for Wild and Scenic Rivers, when a river segment is determined eligible and given a tentative classification (wild, scenic, and/or recreational), its identified outstandingly remarkable values shall be afforded adequate protection, subject to valid existing rights, and until the eligibility determination is superseded, management activities and authorized uses shall not be allowed to adversely affect either eligibility or the tentative classification, i.e., actions that would change the tentative classification from a wild river area to a scenic river area or a scenic river area to a recreational river area (Manual 8351, p. 20).

As the access road to the SENE of Section 30 has been omitted by the proponent, no surface disturbance associated with road construction would occur within the White River eligible wild and scenic river segment.

The selected alternative considers placement of a generator, pump, approximately 1.0 mile of water pipeline, and 2.4 miles of electrical line within the White River eligible wild and scenic river segment. The applicant proposed pumping system will reduce impacts to the eligible wild and scenic river area by eliminating the need for project related tank trucks to access the river for water. In addition, the applicant has committed to hide the pump and generator from the viewshed of the river through the use of vegetative screening. Finally, the operator has committed to take steps to muffle the generator. These impacts are not significant because the proposed water system would allow the BLM to preserve the area's "wild" character by eliminating project related water truck traffic at the river's edge.

- First, the river depletion associated with the selected alternative is not a significant impact because the proposal is in conformance with the Recovery Implementation Program Recovery Action Plan for the endangered Colorado River fish species. Second, impacts to fish habitat from sedimentation or contamination are not significant because the White River is a large river with a high sediment load and high dilution factors, so that the impact would not be measurable. Third, the operator has committed to measures that would reduce current erosion from existing roads, and would prevent spilled contaminants from reaching the river. These include rerouting roads currently located in washes, and using a closed loop system in the Atchee Wash 100-year floodplain. Fourth, impacts to fish from pumping water out of the river would not be significant because the conservation measures that were identified by the Fish and Wildlife Service to avoid impingement were included as applicant committed measures. Consultation regarding these effects was initiated with the Fish and Wildlife Service on November 8, 2007. Fifth, during consultation, the Fish and Wildlife Service identified a reasonable and prudent measure designed to further minimize impacts to the fish. This measure has been incorporated as a condition of approval for this decision record. For additional information regarding consultation with the Fish and Wildlife Service, refer to the consultation summary included in section D below.

4. **The degree to which the effects on the quality of the human environment are likely to be highly controversial.** There is no scientific controversy over the nature of the impacts of the selected alternative.
5. **The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.** The selected alternative is not unique or unusual. The BLM has substantial experience implementing similar actions (both leasing and development) in similar areas. The environmental effects to the human environment are fully analyzed in the EA. There are no predicted effects on the human environment that are considered to be highly uncertain or involve unique or unknown risks.
6. **The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.** The leasing and development scenario considered in the selected alternative does not establish a precedent for future actions with significant effects. The proposed lifting of the suspension on lease UTU-81737 represents a decision in principle about a future use of the land in that the lease carries with it certain rights that would include the right to develop the surface to reach subsurface resources subject to the terms and conditions of the lease, the governing land use plan, and applicable law. However, this leasing is an acceptable use of the land in question, as specified in the Book Cliffs RMP/Record of Decision (ROD). The proposed development represents a decision in principle about the future use of the land in that the proposed development scenario is programmatic, so that additional site-specific review of each on-the-ground component of the selected alternative is necessary prior to project implementation.
7. **Whether the action is related to other actions with individually insignificant but cumulatively significant impacts – which include connected actions regardless of land ownership.** The interdisciplinary team evaluated the possible actions (including connected actions) in context of past, present and reasonably foreseeable actions. Significant cumulative effects are not predicted. A complete disclosure of cumulative effects is contained in Chapter 5 of the EA.
8. **The degree to which the action may adversely affect districts, sites, highways, structures, or other objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources.** The project will not adversely affect districts, sites, highways, structures, or other objects listed in or eligible for listing in the National Register of Historic Places, nor will it cause loss or destruction of significant scientific, cultural, or historical resources. The proposed development scenario is programmatic, so that future site-specific review of each on-the-ground component of the selected alternative is necessary prior to project implementation. As a part of this site-specific review, a class III cultural inventory would be conducted, Section 106 consultation would be completed, and mitigation or avoidance measures would be implemented as the need is identified. Section 106 consultation was conducted for this project with the Utah State Historic Preservation Office and the Native American Tribes with historic ties to the Uinta Basin. The result of that consultation is summarized in the consultation section below.
9. **The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973, or the degree to which the action may adversely affect: 1) a**

proposed to be listed endangered or threatened species or its habitat, or 2) a species on BLM's sensitive species list. The selected alternative would not affect the viability of bald eagle populations within the region. The selected alternative would have “no affect” on the Mexican spotted owl. The selected alternative may impact sage-grouse, but is not likely to result in a loss of viability, nor cause a trend to Federal listing. The water depletion portion of the selected alternative “may affect, is likely to adversely affect” the humpback chub, bonytail, razorback sucker, and Colorado pikeminnow. However, the depletion portion of the selected alternative is in conformance with the Recovery Implementation Program Recovery Action Plan for those fish, so that this impact will not be significant. The sedimentation, contamination, and water pumping associated with the selected alternative “may affect, is likely to adversely affect” the humpback chub, bonytail, razorback sucker, and Colorado pikeminnow. However, the U.S. Fish and Wildlife Service's conservation measures to prevent impingement of fish on the pump's screened intake have been incorporated into the selected alternative. In addition, the Fish and Wildlife Service's reasonable and prudent measure, as identified in their biological opinion dated November 5, 2007, to reduce the potential for the gas pipelines in the 100-year floodplains to be compromised during a flood event, and to reduce the contamination impacts associated with such an event, have been incorporated into the selected alternative. The selected alternative “may affect, is not likely to adversely affect” the Uinta Basin hookless cactus. The selected alternative may affect but is not likely to lead to the need for Federal listing of the Graham's beardtongue and the White River penstemon. Consultation was initiated with the Fish and Wildlife Service on November 8, 2007. A biological opinion was received from the Fish and Wildlife Service that documented their concurrence with the above determinations.

10. **Whether the action threatens a violation of a Federal, State, local, or tribal law, regulation or policy imposed for the protection of the environment, where non-Federal requirements are consistent with Federal requirements.** The project does not violate any Federal, State, local or Tribal law or requirement imposed for the protection of the environment. State, local, and Tribal interests were given the opportunity to participate in the environmental analysis process. Consultation and coordination is summarized in the consultation and coordination sections below. In addition, the project is consistent with applicable land management plans, policies, and programs.

Summary: No significant impacts (direct, indirect or cumulative) would occur to the resources addressed in the Final EA from the selected alternative.

D. RATIONALE:

The decision to approve the selected alternative has been made in consideration of the environmental impacts identified under all analyzed alternatives.

Consistency with Plans, Statutes, and Regulations:

This decision is authorized by and is consistent with the Mineral Leasing Act of 1920, as amended and supplemented (30 U.S.C. 181 et seq.), the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701 et seq.), and implementing regulations found in 43 CFR Part 3150.

The selected alternative is in conformance with the 1985 Book Cliffs Resource Area RMP/ROD, which states that gas and oil resources will be developed on lands deemed suitable for that purpose under a scenario that gives adequate environmental protection. The lease area was identified as being

available for leasing, and all environmental effects have been avoided, minimized or mitigated to the extent possible.

The selected alternative is also consistent with the 2003 Uintah County Plan for Management of the Book Cliffs Resource Area (Uintah County Plan). The Uintah County Plan emphasizes multiple-use public land management practices, responsible use, and optimum utilization of public land resources. Multiple-use is defined in the plan as including, but not limited to, the following historically and traditionally practiced resource uses: grazing, recreation, timber, mining, oil and gas development, agriculture, wildlife habitat, and water resources.

How the Selected Alternative meets the Need and Purpose for the Project:

The underlying need for the Federal action is to determine whether or not to proceed with leasing with respect to lease UTU-81737 as guided by all relevant law and policy, and to permit the exercising of valid lease rights within the Project Area in a manner that minimizes or mitigates environmental impacts, and is consistent with the Book Cliffs RMP, lease terms and conditions, and applicable policies, regulations and laws. The underlying purpose of the Federal action is to incorporate information from ongoing inventories of public land resources, permit the exercising of valid lease rights in a manner that minimizes environmental impacts, and implement protective measures as necessary.

The need and objectives are met by the selected alternative because the selected leasing alternative took into consideration ongoing public land resource inventories, and the selected development alternative minimized potential impacts to those and other resources through applicant-committed mitigation measures that are considered appropriate for the project and its setting.

Why the Other Alternatives were not Selected

Environmental analyses were carried through the EA for Alternative A (Proposed Action), Alternative B (Resource Protection), Alternative C (Leasing and Development with Restricted Surface Use), and Alternative D (No Action). In addition, seven (7) other alternatives were initially considered, but eliminated from further analysis.

Alternative A was not selected as outlined in the final EA because the proponent volunteered to remove the road to the 42-30 well location (SENE of Section 30, T10S, R23E) from consideration in the selected alternative to avoid potential impacts to the eligible Wild and Scenic River corridor along the White River.

Alternative B was not selected because the availability of the land in question to be leased is consistent with the existing approved land use plan and canceling lease UTU-81737 would isolate Federal mineral resources. The subject lease is surrounded by valid State, private, and Federal leases that are in various stages of development. Canceling such a narrow lease (an average of 40-acres wide), which is surrounded by other developing leases, could result in the drainage of the Federal mineral resources underlying that leases through those adjacent leases. If the lease was canceled and the lands subject to that lease were subsequently drained by wells on the adjacent State or private leases, royalties would be lost to the U.S. government. BLM would then be forced to pursue the leasing of these lands and require the drilling of an off-set well to protect the public's interests. In addition, canceling the lease would not preclude the area from being offered in future lease sales, although delaying development of the area may result in the bypass of Federal mineral resources because development of the lease may not be viable at a future time.

Alternative C was not selected because it did not meet the need and purpose for the project. Restricting surface use on lease UTU-81737 would result in the loss of four 40-acre downhole locations on Federal leases in the Project Area. In addition, the road proposed to access the State lease in NENW and NWNE of Section 30, T10S, R23E, and the road proposed to access the NW quarter of Section 31 are more environmentally damaging and more hazardous to human safety, due to topography, than the alternatives routes carried forward in Alternatives A and B. In addition, this alternative would have required the addition of surface use restrictions that were not identified as necessary in the Book Cliffs RMP/ROD, so that it may not have been in conformance with the existing land use plan.

The No Action Alternative was not selected because it would not allow the applicant to fully develop natural gas resources underlying their Federal leases. Not fully developing these leases would not be in the public interest because of the nation's need for energy resources and would also not be consistent with the multiple use mandates of the Federal Land Policy and Management Act of 1976. In addition, the No Action Alternative would deny access to a portion of a State lease (two 40-acre locations) and to three private leases (four 40-acre locations). Since, due to topography, no other reasonable access routes exist for reaching those state and private leases, other than those access routes considered in the EA, this alternative would be contrary to *Utah v. Andrus*, 46 F. Supp. 995 (D. Utah 1979) which determined that BLM is obligated to provide reasonable access to State or private property to which the only feasible access is over Federal lands. For a further discussion of the reasonable access question, refer to the BLM's response to SUWA's comment #9 in Section 6.3.4 of the EA.

The seven alternatives considered but eliminated from detailed analysis include: one well per well pad, buried pipeline, alternative well locations, directional drilling from outside the wilderness characteristics area, lease exchange, closing the area to future leasing, and trucking water. These were eliminated for the reasons listed in Section 2.9 of the EA.

Consultation:

U.S. Fish & Wildlife Service Consultation:

Section 7 consultation with the U.S. Fish and Wildlife Service was initiated on November 9, 2007. On November 30, 2007, the Service responded with a Biological Opinion, including a reasonable and prudent measure for minimizing impacts to the Endangered Fish in the White River. This measure requires that gas gathering pipelines proposed within the 100-year floodplains of Atchees Wash and Saddletree Draw be buried to a minimum depth of 5 feet or to bedrock, unless a scour analysis indicates that a lesser burial depth would be sufficient to minimize risk of damage to the pipeline. Scour analyses for gas gathering pipelines within the 100-year floodplains of Atchees Wash and Saddletree Draw, and decisions on depth to which pipeline burial is needed, will be conducted on site-specific basis during the onsite process. If the on-site determines that the pipeline does not need to be buried to a depth of 5 feet, the BLM must coordinate with the Service and provide any information collected that justifies the final burial depth. This reasonable and prudent measure is within the scope of the Final EA's analysis because the proponent has stated that the gas pipelines could be buried within the same width that was analyzed in the EA for the surface pipelines (30 feet for construction, 15 feet for maintenance). The reasonable and prudent measure has been incorporated into the selected alternative (see section B of this Decision Record). Consultation for this project is therefore considered to be closed. However, since this EA is a programmatic

document, consultation may be reinitiated when it is determined to be necessary based on site-specific review of individual project applications.

Utah State Historic Preservation Office Consultation:

Consultation with the SHPO was initiated with letters dated May 9, 2005 and May 29, 2007. A response was received dated May 29, 2007 requesting further information. Further coordination via phone resolved the SHPO's concerns. Consultation is therefore considered to be closed. However, consultation will be re-initiated as necessary upon completion of the site-specific Class III inventories.

Native American Tribes Consultation:

Consultation with the Native American Tribes was initiated on May 9, 2005. The Confederated Tribes of the Goshute Reservation responded with a letter dated May 18, 2005 that indicated they did not have any concerns with the project. The Santa Clara Pueblo responded with a letter dated June 21, 2005 that indicated the project would not impact their traditional cultural properties.

Consultation was re-initiated with the following tribes on May 3, 2007: White Mesa Ute, Eastern Shoshone, Hopi, Eastern Shoshone and Northern Arapaho, Santa Clara Pueblo, Southern Ute, Northwestern Band of the Shoshone Nation, Navajo Nation, Laguna Pueblo, Zia Pueblo, and Confederated Tribes of the Goshute Reservation. The Laguna Pueblo responded with a letter dated May 14, 2007 stating that the proposed project will not have a significant impact. The Hopi Tribe responded with a letter dated May 29, 2007 stating that if cultural resources are identified and would be adversely impacted by the project, that additional consultation would be necessary.

A letter was received from the Hopi Tribe dated August 13, 2007 referencing a July 10, 2007 correspondence from the Colorado Plateau Archaeological Alliance to the BLM regarding a known cultural site. The Colorado Plateau Archaeological Alliance questioned whether large stone cairns in the Rock House Project Area were historic or prehistoric structures. The Hopi requested documentation concerning the sites. A letter dated September 10, 2007 transmitted the requested documentation. The Hopi Tribe responded with a letter dated September 24, 2007 stating that the subject cairns were not *Hisatsinom* shrines.

Consultation is therefore considered to be closed. However, consultation will be re-initiated as necessary upon completion of the site-specific Class III inventories.

Uintah County Road Department Coordination:

Data on County Roads incorporated into Chapters 2, 3, and 4.

Public Involvement

Previous versions of this selected alternative were reviewed by the public during the May 9, 2005 public comment period on EA UT-080-04-252, the June 7, 2005 public comment period on EA UT-080-04-252, and the October 20, 2006 public comment period on EA UT-080-05-309. Those three documents were precursors to the Saddletree Draw Leasing and Rock House Development EA (UT-080-07-671). Comments submitted during those previous public comment periods were taken into account during the preparation of this EA. For a more complete history refer to Section 1.2 of the EA.

When the revisions to this EA were complete, a 30-day comment period was held from June 22, 2007 through July 23, 2007. The EA was made available to the public in hard-copy and compact disk format in the Vernal Field Office, and through the Vernal Field Office NEPA website (<http://www.blm.gov/utah/vernal/nepa.html>). The public comment period was announced through local media, the BLM Utah State Office website, the BLM Vernal Field Office website, and by posting the project to the BLM Utah Environmental Notification Bulletin Board (https://www.ut.blm.gov/enbb/view_project.php). During the public comment period, 55,725 comment letters were received. Of that total, 231 were letters in support of the project and 55,484 were letters against the project. No substantive comments were provided in those letters. The remaining 10 letters, from the following agencies, organizations, and individuals, did provide substantive comments that are responded to in Section 6.3 of the EA. Some comments identified errors or omissions in the EA. The necessary changes were incorporated into the EA, however, none of the edits warranted an additional public comment period.


Assistant Field Manager for Lands and Minerals

12-18-2007
Date

E. ADMINISTRATIVE REVIEW

This decision is effective upon the date it is signed by the authorized officer. The decision is subject to appeal. Under BLM regulation, this decision is subject to administrative review in accordance with 43 CFR 3165. Any request for administrative review of this decision must include information required under 43 CFR 3165.3(b) *State Director Review*, including all supporting documentation. Such a request must be filed in writing with the State Director, Bureau of Land Management, Utah State Office, P.O. Box 45155, Salt Lake City, Utah 84145-0155, within 20 business days of the date this decision is received or considered to have been received.

If you wish to file a petition for stay, the petition for stay should accompany your notice of appeal and shall show sufficient justification based on the following standards:

- (1) The relative harm to the parties if the stay is granted or denied;
- (2) The likelihood of the appellant's success on the merits;
- (3) The likelihood of irreparable harm to the appellant or resources if the stay is not granted; and,
- (4) Whether the public interest favors granting the stay.

F. CONDITIONS OF APPROVAL

Approval of Alternative A (Proposed Action) is subject to all terms and conditions set forth in the EA and the following Conditions of Approval (COA), which take precedence.

Reasonable and Prudent Measures

The Service believes that the following reasonable and prudent measure is necessary and appropriate to minimize impacts of incidental take of the Colorado pikeminnow, razorback sucker, humpback chub, and bonytail:

1. Conduct all proposed actions in a manner that will minimize harm to Federally listed species through destruction of their suitable or designated critical habitats.

In order to be exempt from the prohibitions of section 9 of the Act, BLM must comply with the following terms and conditions (TOCs), which implement the reasonable and prudent measure described above and outline required reporting/monitoring requirements. These terms and conditions are non-discretionary.

1. Any gas gathering pipelines proposed within the 100-year floodplains of Atchees Wash and Saddletree Draw shall be buried to a minimum depth of 5 feet or to bedrock, unless a scour analysis indicates that a lesser burial depth would be sufficient to minimize risk of damage to the pipeline. Scour analyses for gas gathering pipelines within the 100-year floodplains of Atchees Wash and Saddletree Draw, and decisions on depth to which pipeline burial is needed, will be conducted on site-specific basis during the onsite process.
2. If the on-site determines that the pipeline does not need to be buried to a depth of 5 feet, the BLM must coordinate with the Service and provide any information collected that justifies the final burial depth.

Applicant Committed Environmental Protection Measures

The following measures have been committed to by Enduring Resources in their selected alternative.

Cultural Resources

Prior to construction activities, a Class III (100%) inventory will be conducted in all areas proposed for surface disturbance. If sites are found, a Section 106 consultation of this inventory will occur with the Utah State Historic Preservation Officer (USHPO). If necessary, consultation with the Native American Tribes having ties to the Uinta Basin will occur. Consultation between the Vernal BLM and the USHPO will provide specific mitigation as needed, including but not limited to avoidance, for any eligible sites which may be present in or near the project's footprint.

The operator will follow all Federal laws and regulations intended to protect cultural resources. In the event that cultural materials, not previously identified during the Class III inventory are identified during construction, the operator will cease construction and notify the Authorized Officer. Specific mitigation will be developed by the Authorized Officer, in consultation with USHPO, and implemented by the operator before construction work is resumed.

Enduring Resources has initiated and agreed to fund a historically-sensitive stabilization and restoration project for the Rock House (42Un5015). The goals of the project are to 1) preserve the integrity of the existing stone cabin; 2) slow the natural agents of deterioration; 3) reduce possible public hazards; 4) place an interpretive sign or kiosk; and 5) construct an appropriate fence surrounding the structure. This will involve extensive stabilization and restoration of the stone walls that make up the structure of the cabin, the pine log roof, and the historic fencing. In addition, the project will incorporate an interpretive sign or kiosk that will inform visitors to the site of the historical significance of the Rock House. This stabilization and restoration effort is consistent with Federal and State objectives toward responsible environmental stewardship and the principles of sustainable multiple use.

Enduring and its contractors will ensure that all vehicular traffic, personnel and equipment movement, and construction activities will be confined to the existing roadways and/or cleared access routes. In addition, Enduring and its contractors will inform their employees about Federal regulations intended to protect cultural resources. All personnel will be informed that collecting artifacts, including arrowheads, is a violation of Federal law.

Paleontological Resources

Because of the potential for fossil resources to occur in the Uinta Formation in the Project Area, paleontological surveys will be conducted by a Surface Managing Agency (SMA)-approved paleontologist prior to any surface disturbance. If significant fossils are encountered during the survey, the paleontologist will assess and document the discovery, and either collect the fossils or recommend the area be avoided so as not to destroy the resource. The SMA will determine the need for further monitoring of the area or mitigation of the site during ground-disturbing activities.

If fossils are encountered by the proponent during excavation, construction will be suspended, and the SMA will be notified. Construction will not resume until the fossils are assessed by the SMA Authorized Officer, and appropriate mitigation measures are developed and implemented.

Floodplains

Well pads located within the 100-year floodplain of Atchees Wash will be drilled using a closed-loop system.

Well pads located within the 100-year floodplain of Atchees Wash will be surrounded by berms to divert runoff from the natural land surfaces around the well pads.

Silt fencing or other approved erosion control methods will also be utilized as deemed necessary by the SMA during the APD process.

To reduce impacts to floodplains in the Project Area, Enduring will implement a water pump system that will reduce truck traffic, fugitive dust, and the spread of noxious weeds.

Wetlands and Riparian Zones

To reduce impacts to wetlands and riparian zones in and around the Project Area, Enduring will implement a water pump system that will reduce truck traffic, fugitive dust, and the spread of noxious weeds.

Noxious and Invasive Weeds

During the construction phase of the project, Enduring will implement an intensive reclamation and weed control program after each segment of project completion. Ensuring will reseed all portions of the wells pads and the ROW not utilized for the operational phase of the project. Post-construction seeding application will continue until determined successful by the appropriate SMA. Weed control will be conducted through an Approved Pesticide Use and Weed Control Plan from the AO.

Enduring will implement a water pump system that will reduce truck traffic, therefore decreasing the potential spread of noxious weeds.

Livestock Grazing

To reduce impacts to livestock grazing in and around the Project Area, Enduring will implement a water pump system that will reduce truck traffic and the spread of noxious weeds.

Soil Resources

To reduce impacts to soil resources in and around the Project Area, Enduring will implement a water pump system that will reduce truck traffic and the spread of noxious weeds.

Threatened, Endangered, and Sensitive Animal Species and other Wildlife Species

Enduring and/or their contractors will use a maximum of ¼-inch mesh screening device on the pump intake while pumping water to help avoid the intake of fish. If fish are observed impinged on the intake, Enduring will immediately contact the USFWS and UDWR.

Enduring and/or their contractors will avoid pumping from low flow environments (slow moving water, backwaters, eddies, or the mouth of tributaries).

To prevent contamination of adjacent waterways in the case of an accidental spill of diesel fuel, the trailer mounted generator will be located outside of the White River 100-year floodplain and will be placed inside of a lined earthen berm.

To prevent contamination of adjacent waterways in the case of a spill or pipeline rupture, any tanks or storage facilities associated with proposed wells located within the 100-year floodplain of Atchees Wash will be placed outside of the 100-year floodplain and will be equipped with automatic emergency shut-off valves.

No surface-disturbing activities will occur near active raptor nests during the nesting season. Spatial and seasonal buffers outlined in FW35 of the Diamond Mountain RMP (BLM 1994) will be applied to all active raptor nests occurring in the Project Area.

To prevent the disturbance of bald eagles utilizing winter roosts along the White River, from November 1 through March 31 the water pump generator will only be operated during hours of the day when bald eagles are not typically at roost sites (i.e., 9:00 AM to 4:00 PM). In addition, the generator will be placed inside of an insulated steel building that will reduce noise impacts.

To reduce impacts to wildlife utilizing habitats in and around the Project Area, Enduring will implement a water pump system that will reduce truck traffic and associated noise.

Vegetation including Special Status Plant Species

Prior to any surface disturbance, all well pad sites and access roads in potential Graham beardtongue, White River penstemon, and Uinta Basin hookless cactus habitat will be examined by a SMA-approved botanist to determine if the species are present. These surveys will be conducted within the proper seasonal timeframe, as determined by the SMA and FWS. If the species is present, Enduring Resources will implement appropriate avoidance or mitigation measures, including movement of roads, pipelines and well pads, and design modifications to limit the potential impacts of decreased surface water flows and increased sedimentation to plants and habitats. Specific details regarding

avoidance and mitigation measures are defined in detail in below under the heading Conservation Measures for Special Status Plant Species.

To reduce impacts to vegetation including Special Status Plant Species in the Project Area, Enduring will implement a water pump system that will reduce truck traffic, fugitive dust, and the spread of noxious weeds. In addition, water will be used for dust abatement on all existing roads throughout the Project Area for the life of the project.

Visual Resources

To reduce impacts to visual resources in and around the Project Area, Enduring will implement a water pump system that will reduce truck traffic, fugitive dust, and the spread of noxious weeds.

In order to screen the generator from view along the White River, the generator will be placed within a low profile, camouflaged, portable steel building. The camouflaged building will be hidden by the proposed earthen berms and vegetative screen will also be used to the extent possible.

Wild and Scenic Rivers

To reduce impacts to the features of the White River corridor that make it eligible for designation under the Wild and Scenic Rivers Act, Enduring will implement a water pump system that will eliminate truck traffic near the White River which would then reduce fugitive dust and the spread of noxious weeds.

Air Quality

Enduring will obtain all necessary U.S. EPA, Region 8 air quality permits to construct, test, and operate facilities.

Enduring will use water at construction sites and along roads, as necessary, to abate fugitive dust.

To reduce impacts to air quality in and around the Project Area, Enduring will implement a water pump system that will reduce truck traffic and associated fugitive dust.

Conservation Measures for Special Status Plant Species

White River beardtongue (*Penstemon scariosus* var. *albifluvis*)

In order to minimize effects to the Federal candidate White River beardtongue, the BLM in coordination with the U.S. Fish and Wildlife Service (Service) developed the following avoidance and minimization measures. Integration of and adherence to these measures will help ensure the activities carried out during oil and gas development (including but not limited to drilling, production, and maintenance) will not result in a trend toward Federal listing of the species under the Endangered Species Act (ESA). The following avoidance and minimization measures should be included in the Plan of Development:

1. Pre-project habitat assessments will be completed across 100% of the project disturbance

area within potential habitat¹ prior to any ground disturbing activities to determine if suitable White River beardtongue habitat is present.

2. Within suitable habitat², site inventories will be done to determine occupancy. Inventories:
 - a. Must be conducted by qualified individual(s) and according to BLM and Service accepted survey protocols,
 - b. Will be conducted in suitable and occupied³ habitat for all areas proposed for surface disturbance prior to initiation of project activities and within the same growing season, at a time when the plant can be detected (usually May 1st to June 30th in the Uintah Basin; however, surveyors should verify that the plant is flowering by contacting a BLM or FWS botanist or demonstrating that the nearest known population is in flower),
 - c. Will occur within 300' from the centerline of the proposed right-of-way for surface pipelines or roads; and within 300' from the perimeter of disturbance for the proposed well pad including the well pad,
 - d. Will include, but not be limited to, plant species lists and habitat characteristics, and
 - e. Will be valid until May 1st the following year.
3. Design project infrastructure to minimize impacts within suitable habitat²:
 - a. Reduce well pad size to the minimum needed, without compromising safety,
 - b. Limit new access routes created by the project,
 - c. Roads and utilities should share common right-of-ways where possible,
 - d. Reduce the width of right-of-ways and minimize the depth of excavation needed for the road bed; where feasible, use the natural ground surface for the road within habitat,
 - e. Place signing to limit off-road travel in sensitive areas, and
 - f. Stay on designated routes and other cleared/approved areas.
4. Within occupied habitat³, project infrastructure will be designed to avoid direct disturbance and minimize indirect impacts to populations and to individual plants:
 - a. Follow the above (#3) recommendations for project design within suitable habitats,
 - b. Construction of roads will occur such that the edge of the right of way is at least 300' from any plant,
 - c. Roads will be graveled within occupied habitat; the operator is encouraged to apply water for dust abatement to such areas from May 20th to June 30th (flowering period); dust abatement applications will be comprised of water only,
 - d. The edge of the well pad should be located at least 300' away from plants,
 - e. Surface pipelines will be laid such that a 300-foot buffer exists between the edge of the right of way and the plants, use stabilizing and anchoring techniques when the pipeline crosses the habitat (sparsely vegetated shale slopes of the Green River Formation) to ensure the pipelines don't move towards the population,

¹ *Potential habitat* is defined as areas which satisfy the broad criteria of the species habitat description; usually determined by preliminary, in-house assessment.

² *Suitable habitat* is defined as areas which contain or exhibit the specific components or constituents necessary for plant persistence; determined by field inspection and/or surveys; it may or may not contain White River penstemon; habitat descriptions can be found by linking to candidate species information at <<http://www.fws.gov/endangered/wildlife.html>>.

³ *Occupied habitat* is defined as areas currently or historically known to support White River penstemon; synonymous with "known habitat."

- f. Construction activities will not occur from May 20th to June 30th within occupied habitat,
 - g. Before and during construction, areas for avoidance should be visually identifiable in the field, e.g., flagging, temporary fencing, rebar, etc.,
 - h. Where technically and economically feasible, use directional drilling or multiple wells from the same pad,
 - i. Designs will avoid concentrating water flows or sediments into occupied habitat,
 - j. Place produced oil, water, or condensate tanks in centralized locations, away from occupied habitat, and
 - k. Minimize the disturbed area of producing well locations through interim and final reclamation. Reclaim well pads following drilling to the smallest area possible.
5. Occupied White River beardtongue habitats within 300' of the edge of the surface pipelines' right-of-ways, 300' of the edge of the roads' right-of-ways, and 300' from the edge of the well pad shall be monitored for a period of three years after ground disturbing activities. Monitoring will include annual plant surveys to determine plant and habitat impacts relative to project facilities. Annual reports shall be provided to the BLM and the Service. To ensure desired results are being achieved, minimization measures will be evaluated and may be changed after a thorough review of the monitoring results and annual reports during annual meetings between the BLM and the Service.

Additional site-specific measures may also be employed to avoid or minimize effects to the species. These additional measures will be developed and implemented in coordination with the U.S. Fish and Wildlife Service.

Graham's Beardtongue (*Penstemon grahamii*)

In order to minimize effects to the Federally proposed Graham's beardtongue, the BLM in coordination with the Service developed the following avoidance and minimization measures. Integration of and adherence to these measures will help ensure the activities carried out during oil and gas development (including but not limited to drilling, production, and maintenance) are in compliance with the ESA. The following avoidance and minimization measures should be included in the Plan of Development:

- 1. Pre-project habitat assessments will be completed across 100% of the project disturbance area within potential habitat⁴ prior to any ground disturbing activities to determine if suitable Graham's beardtongue habitat is present.
- 2. Within suitable habitat⁵, site inventories will be done to determine occupancy. Inventories:
 - a. Must be conducted by qualified individual(s),
 - b. Will be conducted in suitable and occupied⁶ habitat for all areas proposed for surface disturbance prior to initiation of project activities and within the same growing season, at a time when the plant can be detected (April 15th to May 20th, unless

⁴ Potential habitat is defined as areas which satisfy the broad criteria of the species habitat description; usually determined by preliminary, in-house assessment.

⁵ Suitable habitat is defined as areas which contain or exhibit the specific components or constituents necessary for plant persistence; determined by field inspection and/or surveys; it may or may not contain Graham's beardtongue. Habitat descriptions can be found in the Federal Register 71(12):3158-3196.

⁶ Occupied habitat is defined as areas currently or historically known to support Graham's beardtongue; synonymous with "known habitat."

- extended by the BLM),
 - c. Will occur within 300' from the centerline of the proposed right-of-way for surface pipelines or roads; and within 300' from the perimeter of disturbance for the proposed well pad including the well pad,
 - d. Will include, but not be limited to, plant species lists and habitat characteristics, and
 - e. Will be valid until April 15th the following year.
3. Design project infrastructure to minimize impacts within suitable habitat²:
 - a. Reduce well pad size to the minimum needed, without compromising safety,
 - b. Limit new access routes created by the project,
 - c. Roads and utilities should share common right-of-ways where possible,
 - d. Reduce the width of right-of-ways and minimize the depth of excavation needed for the road bed; where feasible, use the natural ground surface for the road within habitat,
 - e. Place signing to limit off-road travel in sensitive areas, and
 - f. Stay on designated routes and other cleared/approved areas.
 4. Within occupied habitat³, project infrastructure will be designed to avoid direct disturbance and minimize indirect impacts to populations and to individual plants:
 - a. Follow the above (#3) recommendations for project design within suitable habitats,
 - b. Construction of roads will occur such that the edge of the right of way is at least 100' from any plant,
 - c. Where occurring within delineated area (see map), roads will be graveled; the operator is encouraged to apply water for dust abatement to such areas from April 15 to May 30 (flowering period); dust abatement applications will be comprised of water only,
 - d. The edge of the well pad should be located at least 300' away from plants,
 - e. Surface pipelines will be laid such that a 50 foot buffer exists between the edge of the right of way and the plants, use stabilizing and anchoring techniques when the pipeline crosses the habitat (exposed raw shale knolls and slopes derived from the Parachute Creek and Evacuation Creek members of the geologic Green River Formation) to ensure the pipelines don't move towards the population,
 - f. Construction activities will not occur from mid-April through may within delineated area,
 - g. Before and during construction, areas for avoidance should be visually identifiable in the field, e.g., flagging, temporary fencing, rebar, etc.,
 - h. Where technically and economically feasible, use directional drilling or multiple wells from the same pad,
 - i. Designs will avoid concentrating water flows or sediments into occupied habitat,
 - j. Place produced oil, water, or condensate tanks in centralized locations, away from occupied habitat, and
 - k. Minimize the disturbed area of producing well locations through interim and final reclamation. Reclaim well pads following drilling to the smallest area possible.
 5. Occupied Graham's beardtongue habitats within 50' of the edge of the surface pipelines' right-of-ways, 300' of the edge of the roads' right-of-ways, and 300' from the edge of the well pad shall be monitored for a period of three years after ground disturbing activities. Monitoring will include annual plant surveys to determine plant and habitat impacts relative to project facilities. Annual reports shall be provided to the BLM and the Service. To ensure desired results are being achieved, minimization measures will be evaluated and may be changed after a thorough review of the monitoring results and annual reports during

annual meetings between the BLM and the Service.

6. Reinitiation of section 7 consultation with the Service will be sought immediately if any loss of plants or occupied habitat for the Graham's beardtongue occurs as a result of project activities.

Additional measures may also be employed to avoid or minimize effects to the species. These additional measures will be developed and implemented in consultation with the Service to ensure continued compliance with the ESA.

Uinta Basin hookless cactus (*Sclerocactus glaucus* (= *brevispinus* and *wetlandicus*))

In order to minimize effects to the Federally threatened Uinta Basin hookless cactus, the BLM in coordination with the Service, developed the following avoidance and minimization measures. Integration of and adherence to these measures will help ensure the activities carried out during oil and gas development (including but not limited to drilling, production, and maintenance) are in compliance with the ESA. The following avoidance and minimization measures should be included in the Plan of Development:

1. Pre-project habitat assessments will be completed across 100% of the project disturbance area within potential habitat⁷ prior to any ground disturbing activities to determine if suitable Uinta Basin hookless cactus habitat is present.
2. Within suitable habitat⁸, site inventories will be conducted to determine occupancy. Inventories:
 - a. Must be conducted by qualified individual(s) and according to BLM and Service accepted survey protocols,
 - b. Will be conducted in suitable and occupied⁹ habitat for all areas proposed for surface disturbance prior to initiation of project activities and within the same growing season, at a time when the plant can be detected, and during appropriate flowering periods:
 - i. *Sclerocactus brevispinus* surveys should be conducted March 15th to June 30th, unless extended by the BLM
 - ii. *Sclerocactus wetlandicus* surveys can be done any time of the year, provided there is no snow cover,
 - c. Will occur within 115' from the centerline of the proposed right-of-way for surface pipelines or roads; and within 100' from the perimeter of disturbance for the proposed well pad including the well pad,
 - d. Will include, but not be limited to, plant species lists and habitat characteristics, and
 - e. Will be valid until March 15th the following year for *Sclerocactus brevispinus* and one year from the survey date for *Sclerocactus wetlandicus*.

⁷ Potential habitat is defined as areas which satisfy the broad criteria of the species habitat description; usually determined by preliminary, in-house assessment.

⁸ Suitable habitat is defined as areas which contain or exhibit the specific components or constituents necessary for plant persistence; determined by field inspection and/or surveys; it may or may not contain Uinta Basin hookless cactus. Habitat descriptions can be found in the U.S. Fish and Wildlife Service's 1990 Recovery Plan and Federal Register Notices for the Uinta Basin hookless cactus (<http://www.fws.gov/endangered/wildlife.html>).

⁹ Occupied habitat is defined as areas currently or historically known to support Uinta Basin hookless cactus; synonymous with "known habitat."

3. Design project infrastructure to minimize impacts within suitable habitat²:
 - a. Reduce well pad size to the minimum needed, without compromising safety,
 - b. Limit new access routes created by the project,
 - c. Roads and utilities should share common right-of-ways where possible,
 - d. Reduce width of right-of-ways and minimize the depth of excavation needed for the road bed; where feasible, use the natural ground surface for the road within habitat,
 - e. Place signing to limit off-road travel in sensitive areas,
 - f. Stay on designated routes and other cleared/approved areas, and
 - g. All disturbed areas will be re-vegetated with native species comprised of species indigenous to the area and non-native species that are not likely to invade other areas.
4. Within occupied habitat³, project infrastructure will be designed to avoid direct disturbance and minimize indirect impacts to populations and to individual plants:
 - h. Follow the above (#3) recommendations for project design within suitable habitats,
 - i. Buffers of 100 feet minimum between the edge of the right of way (roads and surface pipelines) or surface disturbance (well pads) and plants and populations will be incorporated,
 - j. Surface pipelines will be laid such that a 100 foot buffer exists between the edge of the right of way and the plants, use stabilizing and anchoring techniques when the pipeline crosses the habitat to ensure the pipelines don't move towards the population,
 - k. Before and during construction, areas for avoidance should be visually identifiable in the field, e.g., flagging, temporary fencing, rebar, etc.,
 - l. Where technically and economically feasible, use directional drilling or multiple wells from the same pad,
 - m. Designs will avoid concentrating water flows or sediments into occupied habitat,
 - n. Place produced oil, water, or condensate tanks in centralized locations, away from occupied habitat, and
 - o. Minimize the disturbed area of producing well locations through interim and final reclamation. Reclaim well pads following drilling to the smallest area possible.
5. Occupied Uinta Basin hookless cactus habitats within 100' of the edge of the surface pipelines' right-of-ways, 100' of the edge of the roads' right-of-ways, and 100' from the edge of the well pad shall be monitored for a period of three years after ground disturbing activities. Monitoring will include annual plant surveys to determine plant and habitat impacts relative to project facilities. Annual reports shall be provided to the BLM and the Service. To ensure desired results are being achieved, minimization measures will be evaluated and may be changed after a thorough review of the monitoring results and annual reports during annual meetings between the BLM and the Service.
6. Reinitiation of section 7 consultation with the Service will be sought immediately if any loss of plants or occupied habitat for the Uinta Basin hookless cactus is anticipated as a result of project activities.

Additional site-specific measures may also be employed to avoid or minimize effects to the species. These additional measures will be developed and implemented in consultation with the U.S. Fish and Wildlife Service to ensure continued compliance with the ESA.